

CLAIMS

1. A lead-acid battery which comprises a positive electrode, a negative electrode, a separator and an electrolyte, wherein:

5 said electrolyte contains volatile organic acid, and
 a content of said volatile organic acid is equal to 250 mg or higher per liter of said electrolyte.

2. The lead-acid battery according to claim 1, wherein the
10 content of said volatile organic acid is equal to 12 mg or higher per liter of said electrolyte.

3. The lead-acid battery according to claim 1 or 2, wherein said volatile organic acid is one acid or more selected from a group
15 consisting of HCOOH , CH_3COOH , $\text{C}_2\text{H}_5\text{COOH}$, $n\text{-C}_3\text{H}_7\text{COOH}$, and $\text{iso-C}_3\text{H}_7\text{COOH}$.

4. The lead-acid battery according to claim 1 or 2, wherein said separator contains a surfactant.

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5. The lead-acid battery according to claim 1 or 2, wherein said separator is composed of polyethylene.

6. A method of manufacturing a lead-acid battery which
25 comprises a positive electrode, a negative electrode, a separator and an electrolyte, wherein:

 said separator contains a surfactant, and

said method comprises a first step in which said lead-acid battery is container-formed; a second step in which said lead-acid battery is left at 40°C or higher for 12 hours or longer; and a third step in which said lead-acid battery is charge so as to make a charged electrical quantity equal to a rated capacity or larger.

7. A method of manufacturing a lead-acid battery which comprises a positive electrode, a negative electrode, a separator, and an electrolyte, wherein:

10 said separator contains a surfactant, and

said method comprises a step of leaving said lead-acid battery at 40°C or higher for 12 hours or longer, followed by charging said lead-acid battery with 30% or higher of a theoretical capacity of a positive active material provided in said positive electrode.

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8. The method of manufacturing the lead-acid battery according to claim 6 or 7, wherein said separator is composed of polyethylene.